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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,744	11/18/2003	Gota Asano	MAT-8484US	5520

23122 7590 01/19/2007  
RATNERPRESTIA  
P O BOX 980  
VALLEY FORGE, PA 19482-0980

EXAMINER
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DOVE, TRACY MAE

ART UNIT	PAPER NUMBER
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1745

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/19/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/715,744	Applicant(s) ASANO, GOTA	
	Examiner Tracy Dove	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 9 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 May 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                                   |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                              | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/18/03</u> . | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on 11/18/03 has been considered by the examiner.

### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "1" and "2" have both been used to designate the same part in Figure 1a. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The disclosure is objected to because of the following informalities: the specification recites "tub" twice on page 2 and four times of page 3. Examiner believes "tub" should be amended to recite "tab". Appropriate correction is required.

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The disclosure is objected to because of the following informalities: pages 3-4, under Summary of the Invention, recites “a positive plate one side edge along the longitudinal direction of which having a protrusion that projects out”, a negative plate one side edge along the longitudinal direction of which having a protrusion that projects out”, which is not grammatically correct. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims recite the upper metal current collector has a terminal and the terminal is disposed through a hole in the center of the sealing plate. The specification states the alkaline electrode is placed in the battery by “pouring a predetermined quantity of an electrolyte from above the electrode group” (page 4 and page 6). The electrolyte cannot be poured from above the electrode group because the upper metal current collector having a terminal does not have an opening for the electrolyte to pass through. As shown in at least Figure 1, if the positive collector and the terminal are manufactured as a single element, the electrolyte cannot enter through the hole above the electrode group.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear how the alkaline electrolyte is poured into the battery if the positive collector and the terminal are a single element.

To the extent the claims are understood in view of the 35 U.S.C. 112 rejections above, note the following prior art rejections.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshinaka et al., US 6,596,434 in view of admitted prior art in the specification (Figures 4a, 4b and top of page 11).

Yoshinaka teaches a cylindrical alkaline storage battery having a metallic case, a sealing plate for the metallic case and a spiral-shaped group of electrodes. The group of electrodes includes a positive electrode plate, a negative electrode plate and a separator. The sealing plate includes a cap-shaped terminal plate, which includes a cap part and a flange. A disc shaped filter is located on the underside of the flange. The disc shaped filter has a gas venting hole in its center. A space between the metallic case and the rims of the flange and of the filter is sealed with a gasket (abstract). An end part of the positive electrode plate is sticking out of the upper

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end of the negative electrode plate and connected to the bottom part of the filter (upper current collector) via the lead tab 9. A bottom end of the negative electrode is arranged to stick out of the bottom end of the positive electrode plate and is connected to the bottom part of the battery case via the lead tab 10 (6:24-32). A sealing agent such as asphalt may be applied between the flange 13b of the cap shaped terminal plate 13 and the filter 1 in order to resist leakage of electrolyte (8:10-19).

Yoshinaka does not explicitly teach a terminal of the upper collector is disposed through a hole in the center of a sealing plate. However, the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made because one of skill would have found the two piece terminal and sealing plate as shown in Figure 1 of the present invention obvious in view of the single piece terminal and sealing plate as shown in Figures 1-5 of Yoshinaka. The battery cap assembly of the claimed invention and the battery cap assembly of Yoshinaka are obvious variants and one of skill would reasonably expect them to function the same.

Regarding other elements of the claimed invention not specifically disclosed by Yoshinaka, Figures 4a and 4b in the present specification are admitted prior art. Furthermore, Applicant states "other structures are almost the same as those of the conventional alkaline storage battery".

\*

Claims 1-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Han, US 5,837,396 in view of admitted prior art in the specification (Figures 4a, 4b and top of page 11).

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Han teaches a nickel metal hydride secondary battery (alkaline) having a cylindrically wound laminate comprising a positive electrode plate, a negative electrode plate and a separator plate interposed there between (1:12-15). As shown in Figure 2, the battery has a cap assembly 18 the covers an open end of the battery can. The cap assembly includes an upper collector having a hole for addition of electrolyte, a sealing plate having a cap shaped terminal that is adjacent the upper collector and a vent member. An electrode protrusion connects the electrode to a bottom surface of the upper collector.

Han does not explicitly teach a terminal of the upper collector is disposed through a hole in the center of a sealing plate. However, the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made because one of skill would have found the two piece terminal and sealing plate as shown in Figure 1 of the present invention obvious in view of the single piece terminal and sealing plate as shown in Figure 2 of Han. The battery cap assembly of the claimed invention and the battery cap assembly of Han are obvious variants and one of skill would reasonably expect them to function the same.

Regarding other elements of the claimed invention not specifically disclosed by Han, Figures 4a and 4b in the present specification are admitted prior art. Furthermore, Applicant states "other structures are almost the same as those of the conventional alkaline storage battery".

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracy Dove whose telephone number is 571-272-1285. The examiner can normally be reached on Monday-Thursday (9:00-7:30).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

January 17, 2007



**TRACY DOVE**  
**PRIMARY EXAMINER**